#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Orthotropic Box Girder (OBG) Components

Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-011271 Address: 333 Burma Road

**Date Inspected:** 05-Jan-2010

City: Oakland, CA 94607

34-0006

**OSM Arrival Time:** 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Liu Fawen **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No

**Delayed / Cancelled:** Yes No N/A

**Component:** 

**Summary of Items Observed:** 

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

### BAY 2

**Bridge No:** 

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005002

Magnetic Particle Testing (MT)

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

1. LD010 – 012 – 003; 006; 011

2. LD010 – 006 – 003; 006; 011

# BAY 3

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 004997

Magnetic Particle Testing (MT)

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC

## WELDING INSPECTION REPORT

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Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

1. LD3009 - 001 - 011; 014; 018; 023; 028; 031

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW):

Weld joint # 026 located on Floor Beam FB205 – 043. Welder is identified as 057795. ZPMC Quality Control (QC) Inspector is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS -B - P - 2212 - B - U2.

Flux Core Arc Welding (FCAW):

Weld joint # 079 located on Corner Assembly CA3005D. Welder is identified as 051356. ZPMCQuality Control (QC) Inspector is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2132 - 3.

Weld joint # 025 located on Floor Beam FB205 – 044. Welder is identified as 204338. ZPMC Quality Control (QC) Inspector is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2232 - B - U2 - F - 1.

Weld joint # 096 located on Corner Assembly CA3005D. Welder is identified as 051356. ZPMCQuality Control (QC) Inspector is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2133.

BAY 5

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW):

Weld joint # 014 located on Traveler Rail 10TR1 – 023. Welder is identified as 067275. ZPMC Quality Control (QC) Inspector is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

Weld joint # 014 located on Traveler Rail 10TR1 – 029. Welder is identified as 217185. ZPMC Quality Control (QC) Inspector is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

Weld joint # 009 located on Traveler Rail 11TR2 – 012. Welder is identified as 215689. ZPMC Quality Control (QC) Inspector is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2132.

Weld joint # 006 located on Traveler Rail 10TR1 – 023. Welder is identified as 250353. ZPMC Quality Control (QC) Inspector is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2232 - Tc - U5 - F.

## WELDING INSPECTION REPORT

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#### BAY 6

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005001

Ultrasonic Testing (UT)

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

1. SP3026-017-027; 030; 031; 034; 045; 047; 052; 056 – Green Tag # 10605

## Magnetic Particle Testing (MT)

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

- 1. SP3042 001 008; 012; 015; 018; 021 Green Tag # 10609
- 2. SP3033 017 002; 005; 006 Green Tag # 10594
- 3. SP3053 001 004; 006~010 Green Tag # 10610

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

#### **Summary of Conversations:**

No Relevant Conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang - 15000422372, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Kumar, Sandeep	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer